

Application 09/875,556
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Amendments to the Claims

This listing of claims will replace all prior versions and listing of claims in the application.

1. (currently amended): A method in a computer system for providing ~~both directory information and dynamically updated contact information for at least one of a plurality of entities in response to a directory search, said method comprising:~~

receiving a user request to execute a directory search;

~~receiving a query criteria to perform a directory search, said query criteria comprising information that is included in a directory database;~~

executing a search of said a directory database in response to said user request, said search utilizing said query criteria to produce a first result comprising a null set or directory information corresponding to at least one entity, wherein said directory database that comprises static information and does not comprise dynamically updated contact information utilizing said query criteria to produce a first result, said directory database being a list of names and addresses of potential recipients;

invoking a dynamic contact information service utilizing said first result to search an electronic calendaring system utilizing at least one of said first result and said query criteria to produce a second result containing comprising dynamic contact information about each recipient included in said first result, said dynamic contact information being dynamically updated to indicate a recipient's current contact information and current availability that describe how the recipient can be currently contacted; and

coalescing said first and second results to produce a coalesced result, and providing said coalesced result.

2.-23. (canceled)

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24. (currently amended): A computer program product in a computer system for providing both ~~directory information and dynamically updated contact information for at least one of a plurality of entities in response to a directory search~~, said computer program product comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable medium comprising:

computer readable program code configured to receive a request by a user to execute a directory search;

computer readable program code configured to receive a query criteria;
~~to perform a said directory search, said query criteria comprising information that is included in a directory database;~~

computer readable program code configured to ~~execute a search of said search of a~~ directory database in response to said user request, said search utilizing said query criteria to produce a first result comprising a null set or directory information corresponding to at least one entity, wherein said directory database comprises static information and does not comprise dynamically updated contact information;

~~that comprises static information and does not comprise dynamically updated contact information utilizing said query criteria to produce a first result, said directory database being a list of names and addresses of potential recipients;~~

computer readable program code configured to invoke a dynamic contact information service utilizing said first result to ~~search an electronic calendaring system to produce a second result containing dynamic contact information about each recipient included in said first result, said dynamic contact information being dynamically updated to indicate a recipient's current contact information and current availability that describe how the recipient can be currently contacted;~~ utilizing at least one of said first result and said query criteria to produce a second result comprising dynamic contact information; and

computer readable program code configured to coalesce said first and second results to produce a coalesced result; and

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~~computer readable program code configured to provide said coalesced result.~~

25.-46. (canceled)

47. (currently amended): A computer system for providing both ~~directory information and dynamically updated contact information for at least one of a plurality of entities~~ in response to a directory search, comprising:

a memory;

a processor connected to access said memory;

a directory database stored in said memory, said directory database comprising ~~a list of names and addresses of potential recipients, said directory database comprising static information~~ and does not comprise dynamically updated contact information:

program instructions stored in said memory and executed by said processor, said program instructions comprising:

instructions for receiving a request by a user to execute said directory search;

~~instructions for receiving a query criteria to perform a directory search, said query criteria comprising information that is included in said directory database;~~

instructions for executing a search of said directory of a directory database in response to said user request, said search utilizing said query criteria to produce a first result comprising a null set or directory information corresponding to at least one entity;

instructions for invoking a dynamic contact information service utilizing said first result to search an electronic calendaring system utilizing at least one of said first result and said query criteria to produce a second result containing comprising dynamic contact information about each recipient included in said first result said dynamic contact information being dynamically updated to indicate a recipient's current contact information and current availability to describe how the recipient can be currently contacted and;

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instructions for coalescing said first and second results to produce a coalesced result; and
~~instructions for providing said coalesced result.~~

48.-69. (canceled)

70. (new) The method according to claim 1, wherein said query criteria is specified by said user when requesting said directory search.

71. (new) The method according to claim 1, wherein said query criteria is generated by a routine and is submitted for use in said directory search.

72. (new) The method according to claim 1, wherein said query criteria is generated by selecting said criteria from at least one source of information.

73. (new) The method according to claim 1, further comprising:

determining whether said first result comprises said null set;

invoking said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set; and

invoking said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set.

74. (new) The method according to claim 1, further comprising:

determining whether said first result comprises said null set;

invoking said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set;

determining whether said query criteria is valid for submission to said dynamic contact information service if said first result comprises said null set;

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invoking said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set and said query criteria is valid for submission to said dynamic contact information service; and

returning no search results if said first result comprises said null set and said query criteria is not valid for submission to said dynamic contact information service.

75. (new) The method according to claim 1, wherein said dynamic contact service produces said second result at least by searching a dynamic content database for dynamically updated information.

76. (new) The method according to claim 1, wherein said dynamic contact service produces said second result at least by dynamically determining contact information in response to each search request.

77. (new) The method according to claim 1, further comprising using said coalesced result as an input into another application.

78. (new) The method according to claim 1, further comprising:
specifying display preferences that describe which directory database and dynamic contact information will be displayed for each executed search; and
displaying said coalesced result based upon said display preferences.

79. (new) The method according to claim 1, wherein said display preferences comprise:
specifying whether to have displayed at least a part of only said dynamic contact information, at least a part of only said directory information, or at least parts of a combination of both directory and dynamic contact information for each executed search.

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80. (new) The method according to claim 1, further comprising:
specifying sort preferences that describe how said coalesced results are to be sorted for each executed search; and
displaying said coalesced result based upon said sort preferences.
81. (new) The method according to claim 80, wherein said sort preferences comprise availability; and
displaying said coalesced data comprises displaying names where a first displayed name is available earlier than a remainder of people whose names are displayed.
82. (new) The method according to claim 1, further comprising:
specifying filtering preferences; and
filtering said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result.
83. (new) The method according to claim 82, wherein filtering said coalesced result using said filtering preferences comprises filtering said coalesced results based upon availability by a user-specified method of contact within a predetermined period of time.
84. (new) The method according to claim 82, wherein filtering said coalesced result using said filtering preferences comprises filtering said coalesced results based upon availability by a user-specified type of contact within a predetermined period of time.
85. (new) The method according to claim 82, wherein filtering said coalesced result using said filtering preferences comprises filtering said coalesced results based upon availability for an in-entity meeting within a particular period of time.

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86. (new) The method according to claim 82, wherein filtering said coalesced result using said filtering preferences comprises filtering said coalesced results based upon availability to check at least one of an e-mail account, an instant message, a telephone call and a page within a particular period of time.

87. (new) The method according to claim 1, further comprising including within said coalesced result, an indication of an alternate contact entity for each entity whose information was returned as part of said coalesced result.

88. (new) The method according to claim 1, further comprising including within said coalesced result, an indication of a physical location where each entity whose information was returned as part of said coalesced result can be reached during a particular period of time.

89. (new) The method according to claim 1, further comprising including for each entity whose information was returned as part of said coalesced result, an indication of a means for contact where said entity will be available during a particular period of time.

90. (new) The method according to claim 1, further comprising including for each entity whose information was returned as part of said coalesced result, an indication of whether an identified means of being contacted is currently being utilized.

91. (new) The method according to claim 1, further comprising including for each entity whose information was returned as part of said coalesced result, an indication of a best means of contact.

92. (new) The product according to claim 24, wherein said query criteria is specified by said user when requesting said directory search.

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93. (new) The product according to claim 24, further comprising computer readable program code implementing a routine configured to generate said query criteria which is submitted for use in said directory search.

94. (new) The product according to claim 24, wherein said query criteria is generated by selecting said criteria from at least one source of information.

95. (new) The product according to claim 24, further comprising:

computer readable program code configured to determine whether said first result comprises said null set;

computer readable program code configured to invoke said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set; and

computer readable program code configured to invoke said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set.

96. (new) The product according to claim 24, further comprising:

computer readable program code configured to determine whether said first result comprises said null set;

computer readable program code configured to invoke said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set;

computer readable program code configured to determine whether said query criteria is valid for submission to said dynamic contact information service if said first result comprises said null set;

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computer readable program code configured to invoke said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set and said query criteria is valid for submission to said dynamic contact information service; and

computer readable program code configured to return no search results if said first result comprises said null set and said query criteria is not valid for submission to said dynamic contact information service.

97. (new) The product according to claim 24, further comprising computer readable program code configured to cause said dynamic contact service to produce said second result at least by searching a dynamic content database for dynamically updated information.

98. (new) The product according to claim 24, further comprising computer readable program code configured to cause said dynamic contact service to produce said second result at least by dynamically determining contact information in response to each search request.

99. (new) The product according to claim 24, further comprising computer readable program code configured to input said coalesced result into another application.

100. (new) The product according to claim 24, further comprising:

computer readable program code configured to specify display preferences that describe which directory database and dynamic contact information will be displayed for each executed search; and

computer readable program code configured to display said coalesced result based upon said display preferences.

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101. (new) The product according to claim 24, wherein said display preferences comprise:

computer readable program code configured to specify whether to have displayed only at least part of said dynamic contact information, only at least part of said directory information, or a combination of at least parts of both directory and dynamic contact information for each executed search.

102. (new) The product according to claim 24, further comprising:

computer readable program code configured to specify sort preferences that describe how said coalesced results are to be sorted for each executed search; and

computer readable program code configured to display said coalesced result based upon said sort preferences.

103. (new) The product according to claim 102, wherein said sort preferences comprise availability; and

computer readable program code configured to display said coalesced data comprises displaying names where a first displayed name is available earlier than a remainder of people whose names are displayed.

104. (new) The product according to claim 24, further comprising:

computer readable program code configured to specify filtering preferences; and

computer readable program code configured to filter said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result.

105. (new) The product according to claim 104, wherein the computer readable program code configured to filter said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result comprises computer readable program code configured

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to filter said coalesced results based upon availability by a user-specified method of contact within a predetermined period of time.

106. (new) The product according to claim 104, wherein the computer readable program code configured to filter said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result comprises computer readable program code configured to filter said coalesced results based upon availability by a user-specified type of contact within a predetermined period of time.

107. (new) The product according to claim 104, wherein the computer readable program code configured to filter said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result comprises computer readable program code configured to filter said coalesced results based upon availability for an in-entity meeting within a particular period of time.

108. (new) The product according to claim 104, wherein the computer readable program code configured to filter said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result comprises computer readable program code configured to filter said coalesced results based upon availability to check at least one of an e-mail account, an instant message, a telephone call and a page within a particular period of time.

109. (new) The product according to claim 24, further comprising computer readable program code configured to include within said coalesced result, an indication of an alternate contact entity for each entity whose information was returned as part of said coalesced result.

110. (new) The product according to claim 24, further comprising computer readable program code configured to include within said coalesced result, an indication of a physical location

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where each entity whose information was returned as part of said coalesced result can be reached during a particular period of time.

111. (new) The product according to claim 24, further comprising computer readable program code configured to include for each entity whose information was returned as part of said coalesced result, an indication of a means for contact where said entity will be available during a particular period of time.

112. (new) The product according to claim 24, further comprising computer readable program code configured to include for each entity whose information was returned as part of said coalesced result, an indication of whether an identified means of being contacted is currently being utilized.

113. (new) The product according to claim 24, further comprising computer readable program code configured to include for each entity whose information was returned as part of said coalesced result, an indication of a best means of contact.

114. (new) The system according to claim 47, wherein said query criteria is specified by said user when requesting said directory search.

115. (new) The system according to claim 47, further comprising program instructions implementing a routine that generates said query criteria.

116. (new) The system according to claim 47, further comprising at least one source of information and program instructions for selecting said query criteria from said at least one source of information.

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117. (new) The system according to claim 47, further comprising:

- program instructions for determining whether said first result comprises said null set;
- program instructions for invoking said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set; and
- program instructions for invoking said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set.

118. (new) The system according to claim 47, further comprising:

- program instructions for determining whether said first result comprises said null set;
- program instructions for invoking said dynamic contact information service to produce said second result utilizing said at least one entity of said first result if said first result is not said null set;
- program instructions for determining whether said query criteria is valid for submission to said dynamic contact information service if said first result comprises said null set;
- program instructions for invoking said dynamic contact information service to produce said second result utilizing said query criteria if said first result comprises said null set and said query criteria is valid for submission to said dynamic contact information service; and
- program instructions for returning no search results if said first result comprises said null set and said query criteria is not valid for submission to said dynamic contact information service.

119. (new) The system according to claim 47, further comprising program instructions for causing said dynamic contact service to produce said second result at least by searching a dynamic content database for dynamically updated information.

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120. (new) The system according to claim 47, further comprising program instructions for causing said dynamic contact service to produce said second result at least by dynamically determining contact information in response to each search request.

121. (new) The system according to claim 47, further comprising program instructions for using said coalesced result as an input into another application.

122. (new) The system according to claim 47, further comprising:
program instructions for specifying display preferences that describe which directory database and dynamic contact information will be displayed for each executed search; and
program instructions for displaying said coalesced result based upon said display preferences.

123. (new) The system according to claim 47, wherein said display preferences comprise:
program instructions for specifying whether to have displayed only at least part of said dynamic contact information, only at least part of said directory information, or a combination of at least parts of both directory and dynamic contact information for each executed search.

124. (new) The system according to claim 47, further comprising:
program instructions for specifying sort preferences that describe how said coalesced results are to be sorted for each executed search; and
program instructions for displaying said coalesced result based upon said sort preferences.

125. (new) The system according to claim 124, wherein said sort preferences comprise availability; and

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program instructions for displaying said coalesced data comprises displaying names where a first displayed name is available earlier than a remainder of people whose names are displayed.

126. (new) The system according to claim 47, further comprising:

program instructions for specifying filtering preferences; and

program instructions for filtering said coalesced result using said filtering preferences to produce a filtered result and displaying said filtered result.

127. (new) The system according to claim 126, wherein said program instructions for filtering said coalesced result using said filtering preferences comprises program instructions for filtering said coalesced results based upon availability by a user-specified method of contact within a predetermined period of time.

128. (new) The system according to claim 126, wherein said program instructions for filtering said coalesced result using said filtering preferences comprises program instructions for filtering said coalesced results based upon availability by a user-specified type of contact within a predetermined period of time.

129. (new) The system according to claim 126, wherein said program instructions for filtering said coalesced result using said filtering preferences comprises program instructions for filtering said coalesced results based upon availability for an in-entity meeting within a particular period of time.

130. (new) The system according to claim 126, wherein said program instructions for filtering said coalesced result using said filtering preferences comprises program instructions for filtering

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said coalesced results based upon availability to check at least one of an e-mail account, an instant message, a telephone call and a page within a particular period of time.

131. (new) The system according to claim 47, further comprising program instructions for including within said coalesced result, an indication of an alternate contact entity for each entity whose information was returned as part of said coalesced result.

132. (new) The system according to claim 47, further comprising program instructions for including within said coalesced result, an indication of a physical location where each entity whose information was returned as part of said coalesced result can be reached during a particular period of time.

133. (new) The system according to claim 47, further comprising program instructions for including for each entity whose information was returned as part of said coalesced result, an indication of a means for contact where said entity will be available during a particular period of time.

134. (new) The system according to claim 47, further comprising program instructions for including for each entity whose information was returned as part of said coalesced result, an indication of whether an identified means of being contacted is currently being utilized.

135. (new) The system according to claim 47, further comprising program instructions for including for each entity whose information was returned as part of said coalesced result, an indication of a best means of contact.